AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 4, lines 5-7, with the following amended paragraph:

Figs. 3(a) and 3(b) schematically show[[s]] an edge filter mounted on the tip of a receiving optical fiber, and a cross-section of an exciting-end optical fiber on the tip of which a band-pass filter is mounted.

Please replace the paragraph at page 4, lines 10-11, with the following amended paragraph:

Figs. 5(a) and 5(b) show[[s]] the characteristics of the filters mounted at the tip of the Raman probe.

Please replace the paragraph at page 5, lines 11-26, with the following amended paragraph:

As shown in Fig. 2, when the Raman probe 12 is seen from its excitation-light outgoing end, a single exciting-end optical fiber 21 is positioned at the center and is surrounded by 8 receiving optical fibers 22. To the tip of the exciting-end optical fiber 21, a band-pass filter 23 is attached, the filter only passing the excitation wavelength emitted by the laser light source 11. On the tip of the receiving optical fibers 22, an edge filter (long-wavelength transmitting filter) 24 is mounted, the filter blocking the excitation wavelength while allowing the Raman-scattered

light coming from the sample to pass. A stainless-steel pipe 25 is mounted on the tip of the exciting-end optical fiber 21, whereby the passing of light between the exciting-end optical fiber 21 and the receiving optical fibers 22 is blocked. As a result, the excitation light emitted by the exciting-end optical fiber 21 is prevented from directly entering the receiving optical fibers 22. When the anti-Stokes line with shorter wavelengths than the excitation light is to be measured as Raman-scattered light, the edge filter may be provided by a short-wavelength transmitting filter that blocks the excitation wavelength while permitting the passage of wavelengths shorter than the excitation wavelength.

Please replace the paragraph at page 5, lines 27-29, with the following amended paragraph:

Figs. 3(a) and 3(b) schematically show[[s]] the edge filter 24 mounted on the tip of the receiving optical fibers 22, and a cross-section of the exciting-end optical fiber 21 on which the band-pass filter 23 is mounted.

Please replace the paragraph at page 6, lines 1-7, with the following amended paragraph:

The edge filter 24 mounted on the tip of the receiving optical fibers 22 has a circular shape with an opening formed at the center, as shown in Fig. 3(a). In one example, when a quartz fiber with a diameter of 125 μm was used for the exciting-end optical fiber 21 and

receiving optical fibers 22, the diameter of the edge filter 24 was set to be 500 μm and its thickness was set to be 100 μm. The diameter of the opening at the center, through which the excitation light was to be passed, was 200 μm.

Please replace the paragraph at page 6, lines 15-22, with the following amended paragraph:

As shown in Fig. 3(b), at the tip of the exciting-end optical fiber 21, a band-pass filter 23 is mounted, the band-pass filter 23 being inserted into an opaque pipe 25. The band-pass filter 23 was prepared by forming an interference filter on the glass substrate by vacuum deposition and then grinding the filter by precision polishing down to the diameter of the fiber required. While ~~the figure~~ Fig. 3(b) shows an air gap 26 between the band-pass filter 23 and the tip surface of the exciting-end optical fiber 21, the air gap 26 may be eliminated [[such]] so that the band-pass filter 23 is disposed in contact with the tip surface of the exciting-end optical fiber 21.

Please replace the paragraph at page 6, line 23 - page 7, line 2, with the following amended paragraph:

The band-pass filter 23 was mounted on the tip of the exciting-end optical fiber 21 in the following manner. Initially, the pipe 25 was mounted on the tip of the exciting-end ~~quartz~~ optical fiber 21 and fixed thereon, and then the band-pass filter 23 was secured to the pipe 25.

Care was taken not to allow the adhesive to enter where laser light passes. The internal diameter of the pipe 25 was substantially the same as [[that]] the diameter of the exciting-end optical fiber 21. The pipe 25 should preferably be made of metal, such as stainless steel. The glass substrate on which the interference filter was formed was inserted into the pipe 25 [[such]] so that the interference filter was opposite the exciting-end optical fiber 21.

Please replace the paragraph at page 7, lines 3-9, with the following amended paragraph:

Fig. 4 is a cross-section of the excitation-light outgoing end of the Raman probe 12 in which the band-pass filter 23 and edge filter 24 are incorporated. Both band-pass filter 23 and edge filter 24 are disposed [[such]] so that their surfaces on which the interference filter is formed are opposite the exciting-end optical fiber[[s]] 21 and the receiving optical fibers 22, respectively. The edge filter 24 is bonded to the tip of the receiving optical fibers 22 with an adhesive, such as glass resin. The sides of the tip are covered with an external covering 27 made of a stainless-steel pipe or a resin film.

Please replace the paragraph at page 7, lines 10-26, with the following amended paragraph:

Because it is preferable that the Raman probe 12 has a small diameter, the wall thickness of the pipe 25 mounted at the tip of the exciting-end optical fiber 21 was set to be several

[[10 μm]] tens of a micrometer such as, for example, 35 μm, as discussed below. In the illustrated example, a stainless-steel pipe 25 with an external diameter of 200 μm and an internal diameter of 130 μm was used. Forming the pipe with plastics or polyimides, for example, is not desirable, as it would lead not only to the generation of fluorescence or Raman scattering due to excitation light, but also to the leakage of light to the receiving optical fibers 22, which would cause ~~cross-talk~~ crosstalk. While in the illustrated example, the exciting-end optical fiber 21 and the receiving optical fibers 22 employ optical fibers with the same diameter, the diameter of the sole exciting-end optical fiber 21 may be made larger than the diameter of the receiving optical fibers 22. A plurality of exciting-end optical fibers 21 may be provided and bundled before being inserted into the pipe 25. The number of the receiving optical fibers 22 may be larger or smaller than 8; however, if the light-receiving solid angle is to be increased in order to improve measurement sensitivity, it is preferable to closely pack the receiving optical fibers 22 around the pipe 25 such that there is no gap between the adjacent receiving optical fibers 22.

Please replace the paragraph at page 8, lines 16-21, with the following amended paragraph:

Figs. 5(a) and 5(b) show[[s]] the characteristics of the filter mounted on the tip of the Raman probe in the example. Fig. 5(a) shows the transmission characteristics of the band-pass filter 23 mounted on the exciting-end optical fiber 21, where the transmission center wavelength is 720 nm and the half-width value is 10 nm. Fig. 5(b) shows the transmission characteristics of

the edge filter 24 mounted on the receiving optical fibers 22, where the optical density ("OD") value is 3 or more at 720 nm.

Please replace the paragraph at page 8, lines 22-24, with the following amended paragraph:

Fig. 6 shows the Raman spectrum of a ~~quarts~~ quartz fiber. There [[are]] is Raman scattering from the quartz and Raman scattering from the materials added to the fiber. As will be seen from the chart, a relatively broad spectrum is obtained.

Please replace the paragraph at page 9, lines 13-21, with the following amended paragraph:

Fig. 9 shows the Raman-scattering spectrum of calcium carbonate measured using the Raman probe 12 of the invention. As described above, Raman scattering is generated from the quartz fibers, for both the exciting-end optical fiber 21 and the receiving optical fibers 22. In the Raman probe 12 of the invention, this excess Raman scattering is eliminated. Specifically, a band-pass filter 23 is mounted at the tip of the exciting-end optical fiber 21 to eliminate Raman scattering generated in the fiber, and the excitation light that attempts to enter[[s]] the receiving optical fibers 22 is eliminated by an edge filter 24 mounted on the receiving-end. By the operation of these filters, a substantially identical spectrum to that of Fig. 7 can be obtained even when optical fibers are used.

Please delete the present Abstract of the Disclosure.

Please add the following new Abstract of the Disclosure:

A Raman probe for measuring Raman spectrum includes an exciting-end light guiding path for guiding excitation light from a light source to a sample; a receiving light-guide path for guiding a light signal from said sample to a detector; a band-pass filter for passing said excitation light and blocking Raman-scattered light produced from said exciting-end light guiding path; a pipe for securing said band-pass filter inside said pipe, said pipe being mounted on a light-outgoing end of said exciting-end light guiding path; and an edge filter mounted on a light-incident end of said receiving light-guide path, said edge filter passing Raman-scattered light from said sample while blocking the excitation light. The edge filter is a short-wavelength transmitting filter that permits passage of wavelengths shorter than the excitation wavelength.